

Datacolor Elrepho® 1000

User's Guide



Datacolor Elrepho 1000, User's Guide

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To obtain information on local agents, contact either of the offices listed below, or visit our website at www.datacolor.com.

Support Questions?

If you need help with a Datacolor product, please contact one of our top-rated technical support teams listed in the appendix for the Datacolor office in your area.



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Datacolor Elrepho 1000

About the Datacolor Elrepho 1000 Spectrophotometer

The Datacolor reference-grade benchtop Datacolor Elrepho 1000 is the newest generation of benchtop color measuring instruments, incorporating an improved integrated circuit technology in the instrument design. The Datacolor Elrepho 1000 is intended for use as a device for measuring, specifying, and evaluating color in both laboratory and production settings, especially where precise digital color communication is required.



Datacolor Elrepho 1000

Below is a summary of the standard and optional features included with the instruments.

Standard features include the following:

- Pulsed xenon light source
- Multiple aperture sizes to accommodate samples of different sizes
- Automated specular port
- Integrated camera and viewing display for precise sample positioning
- Automated aperture detection
- Automated zoom lens
- Automated, adjustable ultra-violet filters for measuring fluorescent samples
- Infrared thermometer for recording sample temperature at time of measurement.

Electrical/Environmental Requirements

Input Power Requirements Input Voltage: 100-240VAC
Number of Phases: Single
Frequency: 50/60 Hz
Power Rating: 80VA

Operating Environment **Temperature:** 5°C to 40°C
Maximum Relative Humidity: 20%-85% non-condensing
Altitude: Up to 2,000 meters
Do not store above 140°F (60°C)
Do not crush, short circuit, mutilate, reverse polarity, disassemble, or dispose. In fire, might cause burns or release toxic materials.

Interfaces USB: 2.0
Ethernet

Safety Features

If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

 **CAUTION**

There are no user-serviceable parts for this equipment.

Light Source

Do not stare directly into the open port located in the front door panel when the measurement is in progress.

Staring directly into the light source can result in eye discomfort similar to that of staring at a camera flash.

Ensure that an aperture plate is installed prior to calibrating the instrument or performing measurements.

Power

 **CAUTION**

Disconnect power before servicing.

The power cord supplied with the unit *must* be used to connect to an earthed (grounded) power supply.

Position the product such that the AC power cord that attaches to the rear of the unit is easily accessible and can be disconnected if required.

Servicing of this instrument is to be performed only by qualified Datacolor personnel.

Instrument Handling

This instrument is intended for use on a stable benchtop and is not meant to be a portable instrument. In cases where it must be physically moved, two persons, each using two hands is recommended.

Feature Summary

These instruments employ state-of-the-art features including the spectrometer, integrating sphere, light source, and optics. Below is a summary of those features:

FEATURE	DESCRIPTION	PURPOSE/BENEFIT
Integrating sphere	Barium coated sphere.	Industry standard.
Measurement Geometry	Diffuse illumination, 0° viewing	Conforms to the instrument specification found in ISO 2469 standard.
SPX Spectral Analyzer	Dual-channel holographic grating. 256-photodiode linear arrays used for both the reference and sample channels.	Dual channel design provides continuous monitoring of sample illumination and compensates for changes. 256-photodiode array enhances the precision of the measurement.
Light source	Pulsed xenon	Filtered to provide D65 illumination including UV component.
Effective Bandwidth	10nm	Reliable Spectral data for determining color and color difference.

Accessories

The Datacolor Elrepho 1000 comes with the following standard accessories:

- Power cable
- USB Cable with ferrite
- Black Trap
- White Tile
- Green Tile
- White Tile Calibration data on USB Memory Stick

Calibration Tiles

A black trap, white tile and green tile are provided with all instruments:

- The black trap and white tile are used each time the instrument is calibrated.
- The green tile is used to perform an optional diagnostic test.
- USB Memory Stick containing the calibration values for the white tile and User Guide



Aperture Plates

Multiple aperture plates with openings of different sizes are included as standard accessories with all models. The identification is engraved on each plate.

The aperture plates listed below are provided with every model:

- Extra-Large Area View (XLAV)
- Small Area View (SAV)
- Ultra-Small Area View (USAV)

Below are aperture plate specifications:

Aperture Identification	Sample Area Measured	Sample Area Illuminated
XLAV	30mm	34mm
SAV	5mm	9mm
USAV	2.5mm	6.5mm

 **NOTE**

The area illuminated is always 4mm greater than the diameter measured to reduce translucency errors

Tips for Aperture Selection

- Always use the largest possible aperture size.
- Small (SAV) and ultra-small (USAV) plates should only be used for measurements of samples that do not completely cover the opening of the larger aperture plates.

Ultra-Violet (UV) Filters

The Datacolor ELREPHO is fitted with an adjustable UV filter to control the amount of ultra-violet light present in the light source, and with UV cutoff filters used to cutoff specific wavelengths. Refer to the Datacolor TOOLS User's Guide Instrument Menu, UV Calibration and Advanced Options, UV Calibration and Whiteness for detailed instructions on the calibration and use of these filters.

Cable Installation

Overview

You must install a power cable and an interface cable (either a USB ***or*** an Ethernet cable) to connect the instrument to a computer.



Do not connect all interface cables to the unit. You have a choice of using an Ethernet cable or a USB cable.

The connections for the cables are found on the back of the instrument.



Read the "Electrical and Environmental Requirements" section ***BEFORE*** connecting your instrument.

Power Cable

A power cable is provided with the instrument.



The power cord supplied with the unit ***must*** be used to connect to an earthed (grounded) power supply.

Power is supplied to the back of the unit via a 3-prong male connector.

Plug the female end of the power cord into the power receptacle on the rear panel of the instrument. Insert the plug into a standard AC outlet.

USB Cable Installation

Instruments manufactured by Datacolor can be connected to a USB port on a desktop system. See *Appendix, System Requirements for USB Connection* before you attempt to connect to a USB port.

You can connect the instrument to the computer using **either** an Ethernet cable, **or** a USB cable. Select one of them. This section provides instructions for using the USB cable.

NOTES

Do not connect all interface cables to the unit at the same time.

If you use the USB cable, you may need to install additional software to activate the USB port. See also *Driver Installation* below for instructions to add this software.

Before You Begin

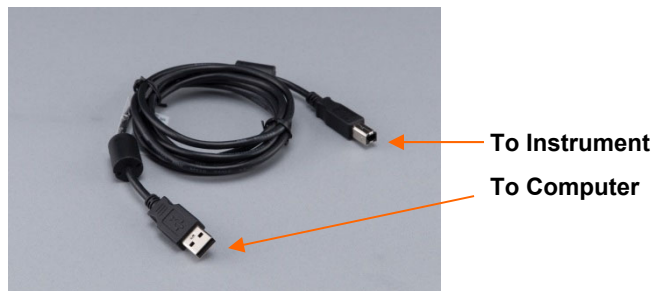
- Close all programs currently running on the system.
- You will need the accessories listed below to complete the installation:
 - USB cable (provided by Datacolor).
 - USB Memory Stick included with the instrument (this is required only when installing new instruments)

Three steps must be completed to enable the USB port for use with the instrument:

- Install the USB cable (as shown below).
- Identify the COM port assignment for the USB port. This is accessed through the Device Manager on the **Control Panel** included with the Windows operating system.
- Change the COM port assignment in the Datacolor applications software.

Cable Installation

The USB cable provided with the system is shown below:



One end of the cable connects to a USB port on the instrument. The other connects to a USB port on the computer.

- Connect the USB cable to the instrument and to the USB port on the back of the computer.

Driver Installation

All current Datacolor software ships with the necessary drivers for the Datacolor Elrepho 1000. If you need help, please contact Datacolor Support via our website at:

<http://industrial.datacolor.com/industrial-support/>

Viewing/Changing System Port Assignment

As part of the USB driver installation, a COM port number is assigned to the USB port. The default selection is the next available COM port. Depending on the application you are running, you may need to know this port assignment to configure the Datacolor applications program(s) to recognize the USB port.

NOTES

Some Datacolor programs automatically configure the USB port assignment. Others require that you manually assign the port number. Refer to the program User's Guide for information to assign/edit the instrument port number.

Ethernet Cable Installation

Instruments manufactured by Datacolor can now be connected to an Ethernet port on a desktop system. See *Appendix, Ethernet Connection Considerations*, before you attempt to connect to an Ethernet port.

You can connect the instrument to the computer using **either** an Ethernet cable, **or** a USB cable. Select one of them. This section provides instructions for using the Ethernet cable.

NOTE

Do not connect all interface cables to the unit at the same time.

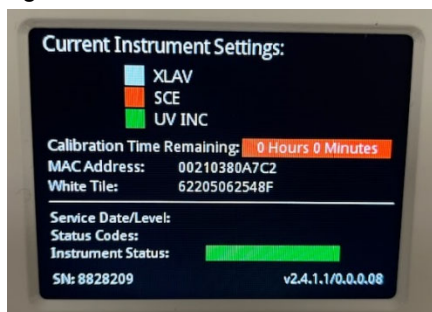
An Ethernet cable is shown below:



1. Connect either end of the Ethernet cable to the connector on the rear panel of the instrument.
2. Connect the other end of the Ethernet cable to an Ethernet LAN port.



3. Observe the LCD Status Display and note the IP address of the instrument. You will need to enter this information into the appropriate software (e.g. TOOLS). Refer to the program User's Guide for information regarding where to enter the IP address.

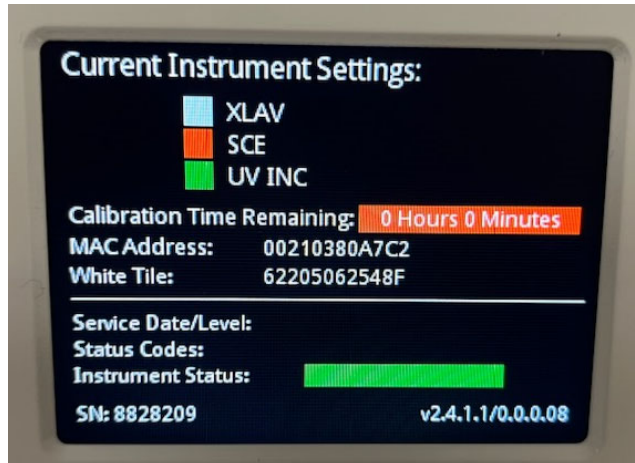


See the *Appendix* for additional *Ethernet Connection Considerations*.

Controls and Indicators

Controls and Indicators Panel

On all benchtop models, an LCD Status Display is located on the instrument. It identifies the current instrument settings being used.



The LCD Status Display will include information regarding:

- Set measurement conditions (aperture, specular port, UV)
- Calibration time remaining
- IP Address (if connected to Ethernet)
- Serial number of the White Tile
- Date and level of last service
- Serial number of the instrument
- Installed firmware version

Powering Up

 **NOTE**

The power cord supplied with the unit *must* be used.

Use this simple procedure to start using your instrument:

1. Verify all cable connections. The AC power cord should be plugged into an outlet. A communications cable (Ethernet, or USB) should be attached to the instrument and host computer or LAN connection as applicable.
2. Turn on the computer.
3. Turn on the instrument power switch. This is located on the side of your instrument.
 - When power is applied, all mechanisms are automatically reset.
 - The LCD will display updates as the instrument starts up, until the final LCD Status Display is shown.

 **NOTE**

If the instrument power is not turned on before a Datacolor program is launched, you may receive an error message.

4. Depending on the model you are using, the LCD Display may include the status of the following mechanisms:
 - Aperture plate/zoom lens position
 - UV filter status
 - Specular port status

When the **LCD Status Display** is shown, your instrument is ready to use.

5. Launch a Datacolor program on your computer.
6. Prepare to calibrate the instrument. You will need the black trap, the white calibration tile and the green diagnostic tile.

Instrument Calibration

Overview

The instrument must be calibrated regularly to ensure that the measurements are accurate. This section provides instructions for performing both reflectance and transmittance calibrations.

NOTE

We recommend that you calibrate the instrument every 8 hours. *Please refer to your software documentation for specific calibration instructions.*

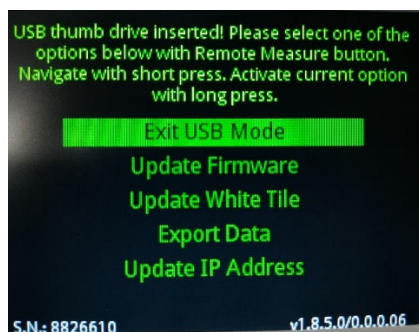
Installing Calibration Data

If this is a new instrument, you will not need to install the calibration data. The White Calibration Tile data is preloaded at the factory. However, Datacolor recommends that White Calibration Tiles be replaced annually. If you need to replace your White Calibration Tile, please contact your local Datacolor office. Upon receipt of a new tile, calibration data can be found on the USB Memory Stick included with the tile. Install the data directly on the instrument by inserting a USB Memory Stick containing the WHITED0.dat file into the USB port at the rear of the instrument. A menu of options will appear on the instrument's LCD Status Display. Below is an example of the installation procedure.

NOTE

The Remote Measure Button serves multiple purposes. In this scenario, one short click will allow you to cycle through the menu options, while pressing and holding for approximately one second will select a menu option.

1. Upon inserting the USB Memory Stick into the instrument, while the LCD Status Display is shown, you will see the screen change to one that is similar to the screen below:



Navigation between the menu options is performed with short clicks of the Remote Measure button.

Activating a selected menu option is performed with by pressing and holding the Remote Measure button for approximately one second.

(Activating the "Exit USB Mode" option will quit the USB mode and returns you to the LCD Status Display.)

-
2. Updating the White Tile is initiated by selecting (short clicks) and activating (long press) the “Update White Tile” option.



This option will overwrite the older files on the instrument with the new WHITED0.dat file on the USB stick, corresponding to the new White Calibration Tile. The instrument will automatically be restarted after the update. The LCD Status Display will reflect the serial number of the new tile.

Reflectance Calibration

The instrument should be calibrated every 8 hours to compensate for changes in the environment. A black trap, white tile and green tile are provided with all instruments to complete the calibration:



The black trap and white tile are used each time the instrument is calibrated. The green tile is used to perform an optional diagnostic test.

Reflectance Calibration Procedure

The software prompts for calibration vary from one program to another. All of the procedures include two measurements:

- The black trap
- The white tile

Before you begin, verify that the aperture plate at the port matches the aperture selection in the program you are running.

1. Access the calibration procedure in the program you are running.
2. When you are prompted by the program, place the black trap at the instrument port.
3. When you are prompted by the program, place the white tile at the instrument port.
4. The program may prompt you for a diagnostic tile. If prompted, place the green tile at the instrument port, and start the measurement.
5. After these measurements are completed, the program will display a message that the calibration is successful. You can now start measuring samples.

The Datacolor User's Guide for the program you are running (e.g., Datacolor TOOLS, etc.) provides step-by-step instructions regarding the (instrument) software setup and calibration procedure.

UV Filter Calibration

The procedure for calibrating the adjustable UV filter is performed in reflectance mode and requires the use of a UV calibration standard obtainable from a number of standardization organizations. Datacolor provides a fluorescent white tile (Fluorescent Reference Standard) that may be used as a reference standard after the instrument has been calibrated for UV using an official UV calibration standard. An applicable whiteness value can only be assigned to the Datacolor Fluorescent Reference Standard after the instrument has been calibrated for UV using an official UV calibration standard. This procedure requires the selection of specific software options. *See also the Datacolor TOOLS User's Guide, which contains step-by-step instructions to calibrate the adjustable UV filter.*

 **NOTES**

This calibration procedure is critical to the accurate measurement, either reflectance or transmittance, of fluorescent samples.

If you are sharing either reflectance or transmittance data for fluorescent samples, the adjustable UV filter in each of the instruments must be calibrated regularly.

Sample Presentation and Measurement Overview

You must pay close attention to the positioning of the sample to ensure an accurate measurement. When positioned correctly, the sample rests between the sample holder and the front panel door. The sample must completely cover the aperture opening.

Reflectance Measurements

1. Grasp the sample holder and pull down. The sample holder can be secured in the “down” position by turning it clockwise, $\frac{1}{4}$ turn.
2. Position the sample on top of the sample holder, and then carefully allow the sample holder to return to normal operating position.
3. If you have secured the sample holder in the down position, turn it counterclockwise $\frac{1}{4}$ turn to disengage it. Be careful not to allow it to spring back into position.

⚠ WARNING

Do not allow sample arm to spring back.

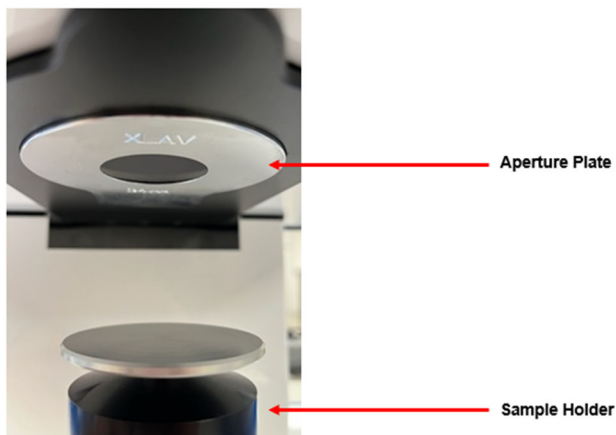
Sample Viewing Port

When measuring small samples, you may need to check that the sample is properly positioned at the port. To verify that the correct area of the sample is being measured:

1. Place the sample at the port. Grasp the black tab above the aperture plate.
2. Pull top of door down to its full horizontal position.
3. The backside of this door reveals the area of the sample covering the port opening. If necessary, adjust the placement of the sample to target the portion of the sample to be measured.
4. Push the door back to its normal position.

Changing Aperture Plates

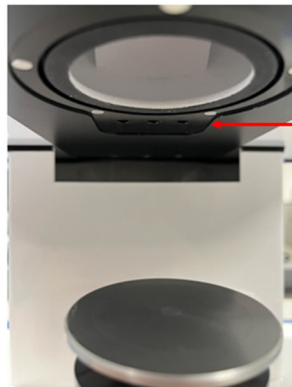
The aperture plate is located under the main housing of the instrument.



If the sample to be measured does not completely cover the aperture opening, you must use a smaller aperture plate. Three aperture plates, each with openings of different sizes, are provided with the instrument. Depending on the size of the sample being measured, you may need to change the aperture plate used.



In the picture below, the aperture plate is removed. The housing containing the aperture plates is slightly recessed, and the metal aperture plates are machined to engage the recess for the plates. The plates are secured with magnets.



Aperture Plate is not attached.

To remove the aperture plate:

1. Secure the sample holder in the 'down' position. To secure, turn holder counter-clockwise $\frac{1}{4}$ turn.
2. Pull on the silver aperture plate using slight force. The plate should separate from the instrument housing.
3. Replace it with the aperture plate appropriate for the sample size being measured.
4. Return the sample holder to the full, upright position.

NOTES

- (1) When changing the aperture plate, you must also make a change to the lens selection in the software setting for the instrument. The user makes this change manually. See the program documentation for instructions to change this software selection.
- (2) Because of the presence of magnets, keep all magnetic media away from the port opening.

Sample Viewing Display

When measuring samples on the Datacolor Elrepho 1000 the status display also serves as a display for sample placement. Toggle to the sample camera view on the LCD by pressing and holding the Remote Measure Button for approximately one second.



Remote Measure Button

The button at the top of the instrument is used to start a measurement from the instrument, rather than from the program. Depending upon your instrument model, it can also be used to toggle to and from a display of video from an internal camera used for sample placement. Toggling the display between the LCD Status Display and the camera video can be performed by pressing and holding the button down for approximately one second.

Sample Temperature

Datacolor Elrepho instrument reports the temperature of the sample at the time of the color measurement. The temperature sensor reports in the following measurement conditions:

1. XLAV aperture only in Elrepho
2. Specular Included
3. UV – 100%, 0% UV, UV Calibrated, FL42, FL46, UV D65/10 (Ganz-Griesser), UV D65/10 (CIE Whiteness), UVC (ISO Brightness), Calibrator

The sample temperature is captured during the sample measurement and reported in Datacolor TOOLS. Datacolor TOOLS is set to a default temperature range of 15-32 degree Celsius (59F to 89.6F). Temperature minimum and maximum limits supported by the sensor are -40 C (Min) and 85 C (Max).

NOTES

Use the solid sample holder to place the solid sample flush against the sphere opening. In order to ensure the best measurement, there must be no gap between the sample and the sphere opening.

Maintenance

About Instrument Maintenance

The certificate of performance supplied with this instrument is valid for one (1) year under the following conditions:

- It is used in an environment suitable for the instrument type.
- It is handled and used with care.

Datacolor strongly recommends that the instrument be serviced once/year by an authorized service engineer.

Datacolor offers a variety of maintenance and certification services to match your needs. Please contact your local Datacolor office for more information.

The sections that follow provide detailed instructions for maintaining the instrument and calibration tiles. These instructions and tips will help to ensure that the instrument continues to perform properly over its life.

CAUTION

There are no user-serviceable parts for this equipment.

Exterior Surface Cleaning

The white, exterior surface of the instrument can be cleaned with an isopropyl alcohol wipe. For more persistent stains, acetone can also be applied.

Warning: Some acetone-based chemicals can cause logo deteriorations with usage.

Sphere Cleaning

The measurement port should be examined visually for the presence of dust, sample particles, fibers, and excessive yellowing due to environmental influences. *This inspection should be performed frequently, especially if you measure loose materials.*

Loose materials in the sphere should be removed by a Datacolor-certified technician.

Tile Handling and Cleaning

Handling Tiles

- Handle calibration tiles with extreme care. Do not drop them or scratch the glazed surface.
- Always use the edges to grasp the tile.

Cleaning Tiles

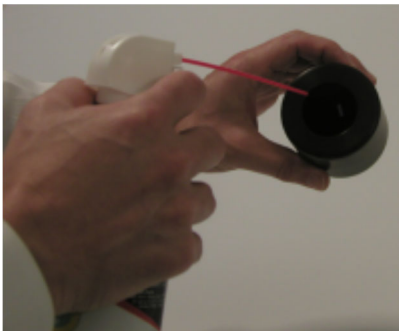
- The calibration tiles should be cleaned before each use. Wipe each tile clean with a soft, lint-free cloth.
- A detergent, free of optical brighteners, fluorescent materials or photoactive dyes should be used as needed to clear any oils, fingerprints or other deposits. Liquid dish detergent is a suitable detergent. The detergent/water solution should be prepared as follows: **1 part detergent : 250 parts water**. Use a few drops of the detergent solution to moisten a soft, lint-free cloth, and gently wipe the tile surface. Rinse the detergent from the tile by wiping it with a cloth, moistened with clean water.
- **NEVER** use abrasive cleansers, razor blades or other metal objects to remove dirt or foreign substances from the calibration tiles. This will damage the surface.
- **NEVER** immerse the tiles in water.
- Tiles that have scratches, chips, abrasions or cracks must be replaced. Signs of wear and tear on the tile surface will affect the accuracy of the calibration.

Tile Storage

- Large temperature variations will affect the accuracy of the calibration, requiring more frequent calibration. The calibration tiles should be stored in an environment that simulates the temperature of the samples to be measured.
- Prolonged exposure to sunlight or other sources of ultra-violet radiation will cause the color of the tiles to change. The tiles should always be stored in a protective case or container away from direct sunlight and environmental contaminants.

Cleaning the Black Trap

The black trap should be kept dust-free. Dust accumulating in the black trap should be blown out with compressed air.



Instrument Status

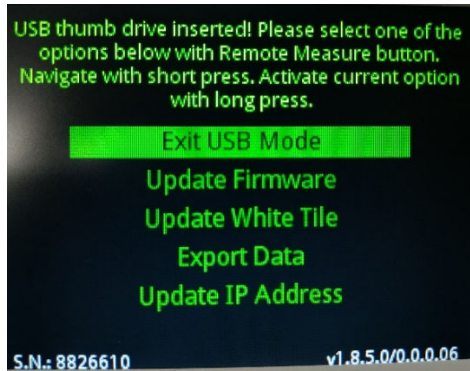
The LCD Status Display includes a color coded (green, yellow, red) Instrument Status bar. Normally, this bar will be green in color and the Status Codes field will be blank. Certain conditions, including the ones listed below, may cause the Instrument Status bar to be yellow or red in color. Corresponding Status Codes will also be displayed. Should these conditions occur, please contact your local Datacolor office for more information and guidance regarding next steps.

Item	Condition	Code and Color
Age of White Tile (Replacement recommended yearly)	10-12 months old	00111; Yellow
	> 12 months old	00121; Red
Control Measurements (Taken during Calibration)	$dE > 0.5$ for a given set of measurement conditions.	00212; Red
	$0.5 \geq dE \geq 0.35$ for a given set of measurement conditions.	00211; Yellow
Time since last Maintenance and Certification	>12 months	00311; Yellow

Exporting Diagnostic Data

Diagnostic data is stored on the instrument. Your local Datacolor office may ask for this data in order to remotely service your instrument. This data can be retrieved via a USB Memory Stick.

1. Upon inserting a USB Memory Stick into the instrument, you will see a screen similar to the one below:



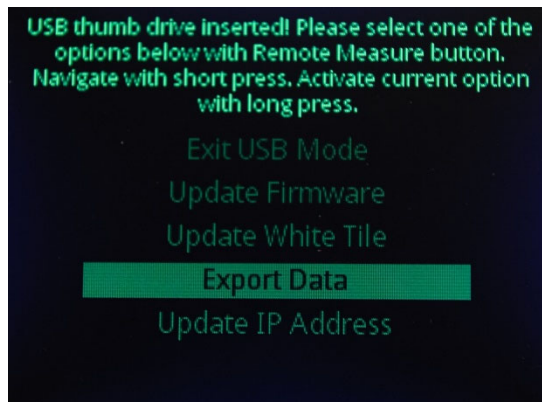
The above option menu is displayed only when inserting the USB stick while on the LCD Status Display.

Navigation between the menu options is performed with short clicks of the Remote Measure button.

Activating the currently selected menu option is performed with by pressing and holding the Remote Measure button for approximately one second.

(Activating the "Exit USB Mode" option will quit the USB mode and displays the LCD Status Display.

2. Exporting diagnostic data is initiated by selecting (short clicks) and activating (long press) the "Export Data" option



-
- When the export is complete, the following will be indicated:



- The data will be stored in a folder named with the following pattern: "Backup"-<InstrumentModel>-<InstrumentSerialNumber>-<CurrentDateTime>

Updating Firmware

The instrument's firmware can also be updated via a USB Memory Stick. Please contact your local Datacolor office before attempting to update the instrument's firmware.

Static IP Address

The instrument's IP address is assigned via DHCP by default when the instrument is connected to a Local Area Network (LAN) via Ethernet. However, a static (fixed) IP address can be configured. Please contact your local Datacolor office before attempting to set a static IP address.

Appendix

Datacolor Elrepho 1000 Instrument Specifications

Specifications are subject to change without notice.

ITEM	DESCRIPTION
Instrument Type	Dual beam integrating sphere with xenon flash lamp.
Measuring Geometry	Diffuse illumination, 0° viewing in conformance with ISO 2469
Illumination Source	Pulsed xenon, filtered to approximate D65.
Sphere Diameter	152 mm / 6.0 inches
Specular Port	Automated specular included
Spectral Analyzer	SPX analyzer with dual 256-diode array and high-resolution holographic grating.
Wavelength Range	360 – 700nm
Photometric Range	0 to 200%
Photometric Resolution	0.003%
Black Trap	High performance
Aperture Configuration	X-Large Area View (XLAV) 34mm illuminated/ 30mm viewed. Small Area View (SAV) 9mm illuminated/ 5mm viewed. Ultra-Small Area View (USAV) 6.5mm illuminated/ 2.5mm viewed
Input Power Requirements	Input Voltage: 100-240VAC Number of Phases: Single Frequency: 50/60 Hz Power Rating: 80VA
Interface	USB: 2.0 Ethernet
LCD	3.5" RGB Color Display Module Max Resolution 320 x 240 Maximum Pixel Clock 28 MHz Power Consumption 150mA @ 3.3 V Operating Temp. -20°C to +70°C Dimensions 82 x 77 x 11.55 mm
Instrument Dimensions*	Height: 25.0" (63.5 cm) Width: 12.2" (39.9 cm) Depth: 16.3" (41.4 cm)

Weight: 54.5 lbs (24.7 kg)

* Sample translucency may affect inter-lens agreement

Features of the Datacolor Elrepho 1000 and Related Configurations

FEATURE	Datacolor Elrepho 1000
Reporting Interval	10nm
Effective Bandwidth	10nm
20 Read Repeatability on White Tile Using Two Flashes (CIELAB)	0.02 CIEL*a*b*(max). 20 reads on white tile, 2 flashes each.
Inter-instrument Agreement—Reflectance Measurements* (CIEL*a*b*)	0.40 (max excluding black tile) CIEL*a*b* 0.25 (avg) CIEL*a*b*
Lens	3-position, auto zoom
Aperture Plates	X-Large Area View (XLAV) 34mm illuminated/ 30mm viewed Small Area View (SAV) 9mm illuminated/ 5mm viewed Ultra-Small Area View (USAV) 6.5mm illuminated/ 2.5mm viewed
Aperture Detection	Yes
Automated, adjustable UV Calibration	Yes
UV Cutoff Filters	395 nm 420 nm 460nm
Remote Measurement Button	Yes
Camera	Yes
Vertical Mount	Yes
Transmittance	No
Sample Temperature:	XLAV aperture

* Measurements made at 23° C +/- 1° C.

Miscellaneous Technical Information

System Requirements for USB Connection

Below are the software and firmware versions required to successfully connect a Datacolor instrument to a USB port.

Operating Systems	Windows 7 or higher
USB Firmware	2.0 or higher

Ethernet Connection Considerations

The instrument connects to an Ethernet port via a standard Cat 5 cable. Because the distance from the instrument to the closest available LAN connection point varies per installation, a cable is not provided. Both the instrument and the associated computer must be on the same Local Area Network (LAN) and configured to be on the same Subnet (e.g. 255.255.255.0). This is not a point-to-point connection between the instrument and the computer.

 **NOTES**

The Instrument relies upon a DHCP Server to obtain an IP address and does not have a Host Name.

Datacolor Global Support

A complete User's Guide is provided with this product. However there are also resources regarding color education on the Datacolor website, including contact information for local Datacolor offices.

<http://industrial.datacolor.com/support/contact-us-2/>